

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

RECEIVED

JUL 18 1997

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of )  
)  
Advanced Television Systems )  
and Their Impact Upon the )  
Existing Television Broadcast )  
Service )

MM Docket No. 87-268

To: The Commission

OPPOSITIONS OF MEMBERS OF THE DIGITAL HDTV GRAND ALLIANCE  
TO PETITIONS FOR RECONSIDERATION  
OF THE FIFTH REPORT AND ORDER AND THE SIXTH REPORT AND ORDER

I. Introduction

The undersigned parties who constituted the *digital* HDTV Grand Alliance ("Grand Alliance") hereby oppose the petitions for reconsideration of the Commission's Fifth Report and Order and Sixth Report and Order in the above-captioned docket, filed by various parties, insofar as they urge the Commission to mandate performance requirements on digital television ("DTV") receivers. Following thorough debates in both the Fifth NPRM and the Sixth NPRM, the Commission refrained from imposing any such receiver requirements, and nothing in the reconsideration petitions offers any new information or other basis to warrant any change in the Commission's decision. The Grand Alliance members also oppose the petition of VenTech to replace the 8/16 VSB modulation system incorporated in the Commission's DTV Standard with a 6 VSB system.

No. of Copies rec'd  
List A B C D E

029

## II. The Commission Should Not Impose Requirements on Receivers

As they have done previously in this proceeding, MSTV, *et al*<sup>1</sup>, urge the Commission to adopt minimum receiver standards that require adaptive equalizer circuits, tuner performance, and noise figures necessary to protect DTV signals from interference, this time suggesting that such standards could be phased in over a reasonable three or four-year transition period. Noting the willingness of receiver manufacturers to cooperate with broadcasters to ensure adequate receiver performance, MSTV alternatively urges the Commission to require manufacturers to file periodic updates with the Commission regarding the development of low noise-figure DTV tuners, saying that such reports would enable the Commission, the relevant industries, and the public to monitor whether more regulatory steps are necessary. Gannett<sup>2</sup> endorses the MSTV proposal in its petition for reconsideration, while Paxson, *et al*,<sup>3</sup> urge the Commission to impose minimum standards for DTV receiver selectivity and sensitivity.

Viacom<sup>4</sup> asks the Commission to conduct an empirical evaluation of performance standards for receiving equipment and antennas to determine whether the assumptions used in constructing the Commission's DTV Table of Allotments are accurate, and if they are not, to adopt mandated performance standards and/or adjustments to the Table to account for sub-

---

<sup>1</sup> Petition for Clarification and Partial Reconsideration of the Fifth and Sixth Reports and Orders submitted by the Association for Maximum Service Television, Inc., the Broadcasters Caucus, and Other Broadcasters, MM Docket No. 87-268, June 13, 1997, pp. 43-45.

<sup>2</sup> Petition for Reconsideration, Gannett Co., Inc., MM Docket No. 87-268, June 13, 1997, p. 4.

<sup>3</sup> Petition for Reconsideration, Paxson Communications Corporation, The Christian Network, Inc., Roberts Broadcasting Company, Cocola Broadcasting Companies, Minority Broadcasters of Santa Fe, Inc., and DP Media of Martinsburg, Inc., MM Docket No. 87-268, June 13, 1997, pp. 8, 11.

<sup>4</sup> Petition for Partial Reconsideration of the Fifth Report and Order and of the Sixth Report and Order, Viacom Inc., MM Docket No. 87-268, June 13, 1997, pp. 5-6, 12-15.

standard performance. In all cases, Viacom urges the Commission to require that all receivers be equipped with a “simple-to-use signal meter” to be employed during antenna pointing.

The Grand Alliance members continue to strongly oppose the imposition of FCC requirements on the reception performance of receivers. As we explained in our comments and reply comments in the Fifth NPRM and the Sixth NPRM, the same marketplace forces that operate today to ensure that television manufacturers provide adequate reception performance will continue to motivate manufacturers to compete to provide high-quality receivers. Furthermore, if it is determined that any minimum performance levels need to be established for DTV receivers, they should be the subject of voluntary industry standards, just as they have been with the current analog system for many years.

Receiver manufacturers have at least as great an incentive as do broadcasters to ensure that their products are useful and satisfying to the greatest possible number of television viewers. Moreover, these manufacturers understand the complicated tradeoffs among various design parameters that must be carefully made in order to achieve the best overall receiver performance at an affordable price. They also recognize the value of offering a range of products with varying capabilities at a variety of price points in order to best meet the diverse needs of their customers. In the fiercely competitive market in which they operate, those who ably make these tradeoffs and judgments stand a good chance of success while any who do not are not likely to survive for long.

The Commission has wisely chosen not to attempt to interfere with the marketplace forces that have guided and will continue to guide the development of DTV receivers and receiving systems. Any action by the Commission to force any particular design or any common set of

universal performance parameters would likely result in a suboptimal mix of products, fewer choices for consumers, higher costs, and lower overall performance.<sup>5</sup>

Although MSTV's latest request shows a greater concern for the potential cost impacts of mandated receiver requirements on manufacturers, their proposal to phase in such requirements should still be rejected. Interfering with the marketplace forces that motivate manufacturers is a bad idea, and phasing it in would not eliminate its negative consequences nor provide any real net benefit to consumers or broadcasters. Similarly, MSTV's proposal to require manufacturers to submit reports on receiver performance that could be used to justify even further regulation of receivers would constitute an unwarranted and counterproductive intrusion into the competitive marketplace, and the Commission should reject this proposal. Likewise, for these same reasons the suggestions of Gannett, Paxson, and Viacom to impose receiver performance requirements should again be rejected by the Commission.

The proposal of Viacom to require every receiver to be equipped with a "simple-to-use signal meter" to be employed during antenna pointing provides a good example of the problems inherent in any Commission interference in the competitive marketplace for receivers. Such a capability may well be valuable for some consumers, but it might also unnecessarily raise the cost of all receivers, including those purchased by consumers who would find no use for or value in this capability. The best course, by far, is to let competitive manufacturers determine what capabilities to offer and how to package them, and let them succeed or fail in the marketplace based on these judgments.

---

<sup>5</sup> Indeed, receiver performance requirements imposed by the FCC would increase receiver prices unnecessarily and delay the adoption of DTV technology by consumers. Consequently, such requirements would delay the cessation of NTSC broadcasts and the return of the analog television spectrum, compromising one of the Commission's vital objectives in this proceeding.

As suggested by Zenith in its Reply Comments on the Sixth NPRM,<sup>6</sup> the application of proven techniques where necessary for reception of DTV at particularly difficult distant locations should be encouraged. However, the suggestion that all DTV receivers should support the highest possible performance parameters or incorporate special reception enhancement capabilities is unfounded and inappropriate. First, the experience with today's analog television demonstrates that the market will provide these types of solutions where required, and in the most economical manner for consumers, i.e., consumers at locations where reception is particularly difficult will bear the modest added cost of a solution without burdening the vast majority of consumers who will be able to receive DTV transmissions with a considerable reception margin. Second, the application of reception enhancement capabilities is highly dependent upon the particular circumstances of reception. In particular, tuner/preamplifier design involves tradeoffs of high dynamic range and large signal handling capability against noise performance levels and weak signal reception capability. The successful inauguration of DTV service will be highly dependent on performance in the presence of potentially interfering analog signals as well as on the propagation of the DTV signal itself. Therefore, the Grand Alliance members strongly urge that such receiver design decisions be left to the marketplace, which has always provided the most effective and economical solutions.

As the developers of the system upon which the ATSC DTV Standard is based, the Grand Alliance members fully understand the concerns of broadcasters that predicted broadcast coverage areas cannot be achieved without adequate receiver and antenna performance. However, we have no doubt whatsoever that the same marketplace forces that operate today to ensure that

---

<sup>6</sup> Reply Comments of Zenith Electronics Corporation, Sixth Further Notice of Proposed Rule Making, MM Docket No. 87-268, January 24, 1997, pp. 2-4.

manufacturers provide adequate reception performance will continue to motivate them to compete to provide high-quality receivers and reception systems. Nevertheless, we encourage broadcasters to work through the ATSC Implementation Subcommittee or other industry groups to ensure that their concerns are met. If it is determined that minimum performance levels need to be established for DTV receivers, we believe they should be the subject of voluntary industry standards, and we would work with the ATSC and the Consumer Electronics Manufacturers Association to establish such standards, just as has been done with the current analog system for the past half century.

### **III. The Commission Should Not Consider Replacing the Modulation System Utilized in Its DTV Standard**

In its reconsideration petition, VenTech urges the Commission to replace the 8/16 VSB modulation system utilized in “the Grand Alliance system” with a 6 VSB system in order to improve co-channel interference performance.<sup>7</sup>

In the first place, this proposal is procedurally flawed because any such request should have been the subject of a petition for reconsideration of the Fourth Report and Order, adopted December 24, 1996, in which the Commission mandated a DTV Standard based on the ATSC DTV Standard recommended by the Commission’s Advisory Committee on Advanced Television Service. More important, the choice of the modulation system used in the ATSC DTV Standard was made under the direction and oversight of the Advisory Committee, based on its evaluation of a very complicated set of tradeoffs among many different performance criteria. A 6 VSB system

---

<sup>7</sup> Petition for Clarification and Partial Reconsideration of the Fifth and Sixth Reports and Orders, Venture Technologies Group, MM Docket No. 87-268, June 13, 1997, pp. 4-5.

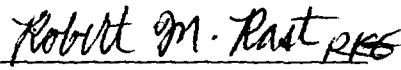
was carefully considered at that time, along with other competing transmission systems, but the 8 VSB system was determined to offer the best overall performance and was selected. Moreover, the superior performance of the chosen system was proven through extensive laboratory and field testing. The Commission cannot and must not second-guess that careful evaluation two years after the fact based on an alleged performance advantage against only one of the many criteria considered by the Advisory Committee in its careful and thorough evaluation. Accordingly, the Commission must reject VenTech's petition to replace the modulation system in the DTV Standard.


#### **IV. Conclusion**

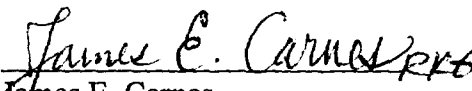
For all of these reasons we urge the Commission to deny the petitions for reconsideration that would have the Commission impose performance requirements on DTV receivers, or replace the modulation system contained in its DTV Standard.

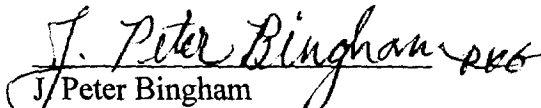
Respectfully submitted,


Members of the Digital HDTV Grand Alliance

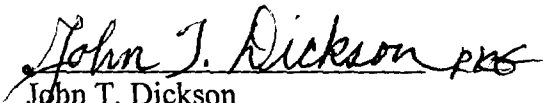
  
Robert M. Rast  
Vice Pres., Technical Business Development  
General Instrument Corporation


  
Bruce M. Allan  
Senior Vice President, Business Development  
Thomson Consumer Electronics Corporation

  
James E. Carnes  
President & Chief Executive Officer  
Sarnoff Corporation

  
J. Peter Bingham  
President  
Philips Research

  
Wayne C. Luplow  
Vice President, HDTV  
Zenith Electronics Corporation

  
John T. Dickson  
Vice President, Integrated Circuits Division  
Lucent Technologies, Microelectronics Group

  
Jae S. Lim  
Professor  
Massachusetts Institute of Technology

Robert K. Graves  
R. K. Graves Associates  
Technology and Policy Consultants  
12701 Mill Glen Court  
Clifton, VA 20124  
(703) 222-0200  
rkgraves@mindspring.com

July 18, 1997

**Certificate of Service**

I, Robert K. Graves, hereby certify that on this 18<sup>th</sup> day of July, 1997, I have forwarded by U.S. mail a copy of the foregoing Oppositions to Petitions for Reconsideration of the Fifth Report and Order and the Sixth Report and Order to the following parties:

Victor Tawil  
Association for Maximum Service Television, Inc.  
1776 Massachusetts Avenue, NW  
Suite 310  
Washington, DC 20036

Jonathan D. Blake  
Covington and Burling  
Attorneys for MSTV  
1201 Pennsylvania Avenue, NW  
P. O. Box 7566  
Washington, DC 20044-7566

Thomas J. Hutton  
Dow, Lohnes & Albertson, PLLC  
Attorneys for Paxson Communications Corporation  
1200 New Hampshire Avenue, NW, Suite 800  
Washington, DC 20036

Peter D. O'Connell  
REED SMITH SHAW & MCCLAY  
Attorneys for Gannett Co., Inc.  
1301 K Street, NW  
Suite 1100 - East Tower  
Washington, DC 20005

Edward Schor  
VIACOM INC.  
1515 Broadway  
50<sup>th</sup> Floor  
New York, NY 10036

Gary Spire  
Venture Technologies Group  
6611 Santa Monica Boulevard  
Los Angeles, CA 90038-1311

  
Robert K. Graves